

1 METHOD AND APPARATUS FOR ENCAPSULATING PARTICULATES

Abstract

5 An improved method and device for decontamination of
a contaminated process area is provided whereby a fine
aerosol of an encapsulant for use in encapsulating the
contaminants within the contaminated environment is
generated. The aerosol is generated by a plurality of
10 ultrasonic transducers located below the surface of a
reservoir containing a capture liquid. The output of the
transducers is focused to a point near the surface of the
liquid to cause a surface disturbance which results in the
formation of an aerosol of encapsulant from the capture
15 liquid. A pressurization fan is used to force ambient air
through the pressurization chamber to transport the
aerosol to the process area to be treated. The aerosol
forms a thin coating of encapsulant over the hazardous
material thereby allowing the hazardous material to be
20 safely removed from the process area or permanently
adhered to the walls of the process area. If a chemically
hazardous material is found in the process area, a capture
liquid can be selected to neutralize the hazardous
material. The process is especially effective at
25 recovering radioactive dust from a contaminated process
area.

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